



BA/SA/Group/Lab:

Personalized Provider Selection

Most people carry their smartphones with them wherever they go. Mobile phone carrier companies offer a wide selection of services to users who want to be reachable everywhere and anytime. In order to attract more customers, carriers use smart marketing schemes like discounts for customers under 25, contracts that include subscriptions to premium streaming music services or all inclusive contracts, where, instead of paying per usage, users pay a monthly flatrate for their service. However, the quality of service customers effectively get is greatly dependent on the distribution of the carrier's infrastructure antennas, which differ greatly between or within cities. A user looking for a new contract can find an offer that looks really good on paper, but what if he comes home with his brand new phone to find that by some stroke of bad luck he barely has any reception in his own house?



Instead of the user having to decide between the different carriers by only knowing the best-effort delivery promise from the service providers, we are proposing a solution where live signal measurements are instrumental in pinpointing the optimal provider.

The goal of this thesis is to develop and implement a distributed service in the form of an Android application that measures signal strengths and network connectivity of all known providers in a given region. The collected measurements should then help the users find the service provider that performs optimally for their unique movement pattern.

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Requirements: Creative thinking and advanced programming skills are advantageous to successfully work on this topic. The student(s) should be able to work independently!

Interested? Please contact us for more details!

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